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EPA REGION VIII
HAZARDOUS WASTE
MANAGEMENT DIVISION

847A Missouri St.
San Diego, CA. 92109
September 28, 1993

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FILE PLAN
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Mr Robert L. Duprey, Director
Hazardous Waste Management Division
United States Environmental Protection Agency Region VIII
999 18th Street - Suite 500
Denver, Colorado 80202-2405

Dear Mr Duprey:

Lydia Ogden Ashew, with the U.S. Department of Health and Human Services, was kind enough to send me a copy of the Preliminary Health Assessment study for the Richardson Flat Tailings in Park City, Utah. In order to become more knowledgeable on the subject of mine tailings I also reviewed the Prospector Square study on file at the Utah Department of Health, Bureau of Solid and Hazardous Waste. As a layman I could not understand why it was not acceptable for residential building purposes to merely cover up such mine tailings with fill dirt, yet according to Dr Terrence D. Chatwin, Senior Regional Environmental Consultant with Chen-Northern Inc. and the studies mentioned above that I reviewed, the EPA does not consider this an acceptable solution to the problem. I expressed my concern to Nancy Johnson of that office and she promised to look into the matter on my behalf. She sent me a copy of your letter of July 28, 1988 addressed to Ms Arlene Loble, City Manager, Park City, Utah regarding the Prospector Square problem.

the city ordnance written in response to your letter, and a recent Phase I Environmental Assessment and Soil Sampling which was done by Sergent, Hauskins & Beckwith, Consulting Geotechnic Engineers on a parcel of land located in downtown Park City. This Phase I report states that " Clean up levels for lead and arsenic as applied to other areas of Utah, are 200 to 500 ppm and 20 to 70 ppm respectively. Park City is currently exempt from these clean up levels if the metals are associated with mine tailings, through an agreement with the Utah Department of Environmental Quality (DEQ) and Region VIII EPA, if the tailings are covered by 6 inches of inert material." Unfortunately the report does not reference the authority for this exemption and the city ordnance and your letter of July 28, 1988 apply only to the Prospector Square property.

I have enclosed copies of some recent Wall Street Journal articles concerning mine tailings. It is obvious to anyone who has looked into the subject, that if in fact there is a health problem associated with mine tailings, it should be addressed in a forthright manner as you did in your letter to Ms Loble. Why not apply the above exemption to all existing mine tailings throughout the states of Utah, Idaho, and Colorado? Such an approach, if widely publicized, would go a long way towards minimizing any potential existing health hazards. I would appreciate receiving a copy of the letter authorizing all of Park City an exemption if the consultants mentioned above are correct as to its existence.

Sincerely

Dr Frank E. Dotson

cc Dr Terrence D. Chatwin
Senator Orin Hatch

were noted in Test Pits 2 and 3. The upper soils in Test Pit 1 had a slight hydrocarbon odor. Groundwater was not encountered in any of the test pits.

Soil samples were collected from the tailings layers (where present), from the upper foot of natural soils, and from the 6- to 8-foot depth interval, for a total of eight samples. Three samples from Test Pit 1 were submitted to an analytical laboratory for the following analyses: one sample from the suspected tailings layer was analyzed for lead, arsenic, and copper; one sample from the upper layer of natural soil was analyzed for lead, arsenic, and copper; and one sample from the 1 to 2 foot depth interval that had a slight hydrocarbon odor was analyzed for total petroleum hydrocarbons (TPH). The remaining samples are currently stored in our office.

The laboratory report is attached as Appendix B. Results of sample analysis detected elevated levels of lead [5,900 parts per million) (ppm)] and arsenic (440 ppm) in the tailings layer. Copper concentrations (610 ppm) though higher than anticipated for soils in the Park City area, are not at a level high enough for regulatory concern. Clean up levels for lead and arsenic, as applied to other areas of Utah, are 200 to 500 ppm and 20 to 70 ppm, respectively. Park City is currently exempt from those clean up levels if the metals are associated with mine tailings, through an agreement with the Utah Department of Environmental Quality (DEQ) and Region VIII EPA, if the tailings are covered by 6 inches of inert material.

Metals concentrations in the sample collected from the upper one foot of natural soil were within the "normal" range for soils in the area indicating that metals have not leached downward into the underlying soils. TPH was detected at 420 ppm in the sample collected from the one- to two-foot depth interval. Typically, the DEQ sets clean up levels for TPH between 30 and 500 ppm, depending on the site specific conditions.

5. DISCUSSION AND CONCLUSIONS

Based on the information reviewed and the data gathered during the course of this environmental audit, it appears that the site is one of limited historical use. Aerial photographs from the dearly 1950's and 1967 show the site to be essentially vacant. The site was occupied by a convenience store from the early 1970's to the mid 1980's. We would therefore conclude that the probability

For These Residents, EPA Cleanup Ruling Means Paradise Lost

* * *

Townsfolk of Triumph, Idaho, Happy on 'Tainted' Land, Reject Agency's Findings

By Tony Horwitz
Staff Reporter of The Wall Street Journal

TRIUMPH, Idaho—Dan Tucker lives at epicenter of what the Environmental tection Agency believes may be the st hazardous waste site in the U.S.

"It's paradise," he says, sitting on his k porch in this scenic former mining n near Sun Valley.

Mr. Tucker, 43 years old, gazes at the s, sipping well water in which the EPA found high lead levels. He uses the e water to hose down a plastic "Slip ie" for his two young daughters to flop face first, and skid across a yard that EPA says is laced with lead and enic.

Flanking Mr. Tucker's home—once the chine shop for a lead and silver mine — piles of contaminated waste. On dry mer days, the wind sweeps the dust nearby homes and gardens. The EPA found heavy metals inside the kers' vacuum cleaner.

in My Backyard

et the fence-builder, like his neigh-, says he isn't putting his family at "My girls are fine, the dog's healthy, lawn looks good and I'm no more ented than I was when I came here 21 s ago," he says, making light of lead's ct on IQ levels. "I wish they would just e us alone."

he EPA isn't cooperating. The agency nominated Triumph for Superfund up and conferred on it an initial risk g that exceeds any ever given to one e nation's 1,200-odd Superfund sites, ding Times Beach, Mo., and Love al in New York.

Braced for battle against Triumph's ns, the EPA has been ambushed in- by Triumph's inhabitants — all 46 of n. Residents insist that Triumph's lead arsenic are much less poisonous to than the prospect of backhoes and aucrats taking over their town.

hey also intend to defend every clod of minated soil. "We look like we're a h of hicks in the sticks that the can just mow over," says Wendy ns, a local activist. "But I don't think it ook so good when housewives start ing themselves to bulldozers."

Up and Beautiful

riumph, named for a century-old min-laim, is both stunning and badly ed. Nestled on the floor of a 6,000-foot-canyon, the town's 17 homes — mostly er miners' cottages — ring a moon-of mine tailings that locals call "the sand." On one side of town runs a thick with beaver; on the other soars untain of mine waste, topped by doned machinery and the ruins of a

This setting has kept land affordable and drawn residents so eccentric that they jokingly suggest Triumph as the set for a TV series called "Western Exposure." When the mine closed in 1957, a religious cult called "the Saucer People" moved in, awaiting the return of Christ on a flying saucer. Then came refugees of the 1960s counterculture, many of whom remain.

Typical is Ms. Collins, a tailor and nondenominational minister from California who calls herself an ex-hippie and New Age environmentalist. "Before," she says, "whenever the EPA nailed some corrupt contractor, I used to go, 'Yeah!' "

All that began to change two years ago, when the EPA came to town. The agency held a meeting to warn residents that their

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The Townsfolk of Triumph, Idaho, Are Rejecting EPA's Finding of Tainted Land in Their Paradise

Continued From First Page

air, soil and water were badly fouled. Experts from Atlanta explained how childhood exposure to lead could lower IQ, while arsenic might poison residents or cause cancer.

Heidi Heath, who hosted the meeting in her garage, says that for months afterward, "I would lie awake at night, crying." As the mother of two young girls, she says, "I kept blaming myself, thinking, 'What have I done to my children?' "

She also felt trapped. Since the EPA's arrival, banks have refused loans to residents and real-estate agents say the threat of a Superfund listing makes houses here almost unsalable.

"We're lower-middle class, our property is everything," says Ms. Heath, a seamstress and part-time bookkeeper.

But soon after that first meeting, Triumph experienced another shock. Blood and urine tests showed that residents' lead and arsenic levels were normal – and well below those in big cities. Adults who grew up in Triumph, often playing in the black sand, also showed no ill effects.

Moreover, all but one retest of the town's well failed to show signs of high lead content. With her bookkeeper's eye, Ms. Heath also began to notice errors. For instance, the EPA issued identical, alarming results from soil tests taken all across town. "You were inadvertently given the wrong sample results for your property," the agency wrote in a follow-up mailing.

Such flubs made Ms. Heath wonder how many other errors were in the symbols and charts that the residents couldn't understand. She also was irked by the EPA's attitude. When she and other parents offered their children's baby teeth – which have been used to study lead exposure elsewhere – the EPA refused, saying such research must await "another phase."

Chris Field, the EPA's on-site coordinator, concedes that "certain errors" have been made. "But overall, we stand behind our data," he says. That data clearly suggests to the EPA that the toxins may imperil residents, particularly children.

Mr. Field adds that health tests – four so far – aren't conclusive because they only show recent exposure. "We're the Environmental Protection Agency, not the Environmental Reaction Agency," he says. "It's our job to protect health, not wait for adverse health before we act."

Unconvinced, Triumph has chosen to mobilize and found an appropriately unorthodox leader in Donna Rose, a 47-year-old art dealer who keeps a shotgun by her kitchen door and who dresses in baggy sweatshirts and Technicolor tights.

Armed with a video camera, Ms. Rose visited other Superfund sites and gathered testimony about the program's history of cost and time overruns. She plowed through texts such as "Basic Toxicology" to find studies that cast doubt on the EPA's stance. And she thrust it all on her neighbors, many of whom now discuss "the Michigan swine study on bioavailability" as easily as they do the weather.

Ms. Rose also has swayed Idaho's congressmen, and found lawyers and scientists willing to give free advice. The result: When the EPA formally requested "public comment" this summer on its proposed Superfund listing, Triumph fired back almost 1,000 pages, arguing that the EPA had grossly exaggerated the risk to the town.

"I haven't run into this strong and organized an opposition in my time at the EPA," says Michelle Pirzadeh, a 10-year veteran at the agency's Seattle office.

Almost every adult in Triumph signed the anti-Superfund petition, and a door-to-door tour of the town turns up no dissenters. While some residents say they would accept a limited cleanup – a cap on the mine tailings, for instance – they oppose the open-ended, multimillion-dollar process triggered by a Superfund listing.

"Would you hire a contractor who has no references of a successful job well done, has never come in at cost, and who spends most of his money on legal fees?" asks 50-year-old Ms. Collins, the activist, voicing common criticisms of Superfund.

The EPA's Mr. Field says the agency wants to avoid a confrontation. But the EPA has no choice other than to press ahead, in part because a Superfund listing is the only way to free funds for further study. "We're locked in," he says.

So, too, it seems, are Triumph residents. While a final decision on the Superfund listing still is months away, the EPA hopes to start an emergency cleanup of residents' yards, perhaps as early as this fall. If it goes ahead, Triumph resident Chris Klick warns that "there could be some anarchy here."

Mr. Klick, 46, who owns a sheet-metal workshop, says he "went out and bought 1,000 rounds of 9mm [ammunition]–that's my public comment." If the EPA approaches his yard, he says, "I'm going to be standing at the gate with a gun. That's the way of the West."

He doesn't plan to shoot anyone, but he does intend to hold his ground, forcing the EPA to call out the National Guard. (Others say they will do the same by blocking the road with snowmobiles or chaining themselves to trees.) Mr. Klick's reasoning is typical. The health tests and reading he has done have convinced him that the toxins in Triumph are hard to ingest, and even harder to clean up–though both points remain subject to scientific debate. And he feels that whatever risk does exist must be weighed against the otherwise healthy environment Triumph offers, with its lack of city smog, stress and crime.

In the end, he adds, the fight boils down to a "very American principle" – the right to choose, and accept the consequences. For now, folks in Triumph are doing just that. Ms. Rose, the art dealer, enjoys wind-surfing across the ponds that form on the mine tailings. Others keep tilling their gardens, joking about huge "mutant" carrots, and about ice cubes that sink because of all the lead.

As for Mr. Klick, lead and arsenic pale beside other risks. "I ski down avalanche chutes, I race dune buggies in the desert, I ride a motorcycle, I hunt," he says. "Living in Triumph is the safest thing I do."

Dogma in Doubt

Some Question Extent Of Lead's Risk to Kids, Need to Remove Paint

Data on Peril Are Ambiguous; Strict Abatement Can Cut Supply of Rental Housing

Blood Levels Are Way Down

By David Stipp
Staff Reporter of The Wall Street Journal

For many parents, lead tops the list of scary things, and no wonder.

Lead poisoning is youngsters' most devastating environmental disease, say federal officials. Lead hurts one of six U.S. children, lowering IQ and inducing hyperactivity, declares the Environmental Defense Fund.

Medical policy makers are pushing hard for universal childhood blood tests for lead. Reports given to a House subcommittee hearing yesterday state that lead looms as a huge problem for schools, with thousands of New York classrooms posing hazards. Removing lead paint in houses has become a booming business. And lead is fast replacing asbestos as the toxic tort king. "The floodgates are open" for lead lawsuits, says a Boston attorney whose firm has filed hundreds of them.

But even as pressures mount to get the lead out, evidence is emerging that activists have overstated the threat. In fact, U.S. citizens' average lead levels have plummeted more than two-thirds since the mid-1970s, following bans on lead in paint and gasoline.

Setting Priorities

"Lead poisoning is mainly a problem of the past," says Sergio Piomelli, a pediatrician at Columbia Presbyterian Medical Center in New York and an adviser on lead to the federal Centers for Disease Control and Prevention. He adds that while lead still needs attention, "lots of other children's problems are more urgent."

At Kaiser Permanente Medical Center in Oakland, Calif., Edgar Schoen, a senior pediatrician, says, "We see malnutrition, homelessness, child abuse, lack of immunizations, violence and pediatric AIDS in children. But we haven't seen a child sick from lead poisoning for many years."

Moreover, researchers don't know whether childhood lead levels would be significantly cut by widely abating lead paint, which is only one of several sources of ingested lead. In Massachusetts, a law that requires abating all dwellings with children under six has drawn fire from critics who say it leads to skyrocketing insurance premiums, petty litigation, discrimination against renters with children and a loss of low-income housing.

What would it cost to abate all the lead paint in the U.S., as some activists de-

Mr. Jacobs's Story

With such problems and costs, a growing band of scientific and medical iconoclasts questions the need for universal lead screening and massive abatement. While lead certainly deserves attention, they argue, unwarranted alarm about it is fostering dubious blanket approaches to it that devour resources better spent on worse hazards to children's health.

In Massachusetts, Ronald Jacobs experienced firsthand the effects of the nation's most unbending anti-lead law.

Two years ago he returned from work to find skull-and-crossbones signs tacked on his doors. A housing inspector had found lead paint in his house in Taunton, south of Boston. "I didn't know nothing about lead paint," says Mr. Jacobs, a cook.

He soon was educated. Since toddlers lived in two upper-floor rental apartments, Mr. Jacobs was told he had to abate the lead paint, which typically entails removing it from child-reachable surfaces such as window casings and door frames.

The inspector also notified his tenants that they could legally withhold rent pending abatement.

A Catch-22

There was no evidence anyone in the house had high lead levels from the old leaded paint, and the old paint in the house was covered by newer, unleaded paint. But "I had a nightmare on my hands," says Mr. Jacobs.

Banks wouldn't lend for the $10,000-plus deleading because his house's value had fallen sharply, partly due to possible lead-poisoning lawsuits. Since Mr. Jacobs's tenants stopped paying rent, he fell behind on his mortgage. Running short of cash, Mr. Jacobs says, he and his wife often huddled near the kitchen oven on winter days to save on heating oil.

Eventually, his lower income qualified him for a state deleading loan for strapped property owners. But during the two-week abatement, he had to pay most of his tenants' motel and food bills; no one was allowed to stay at home during the process. Meanwhile, thieves broke in—apparently a worker left a window open—and took the Jacobses' television set, jewelry and spare cash.

Near financial meltdown, Mr. Jacobs filed for bankruptcy protection from creditors. "I don't like to stiff people," he says. "But I got my life savings in my house. It was the only way to save it."

Abatement proponents dismiss such cases as the minor costs of stopping a toxic plague. "The Massachusetts approach is probably the best one in the country," says Herbert Needleman, a University of Pittsburgh researcher.

Dr. Needleman, chairman of the All-

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Dogma in Doubt: Extent of Lead's Danger to Kids And Advisability of Abating Paint Draw Skepticism

Continued From First Page

ance to End Childhood Lead Poisoning, a lobbying group, says that lead poisoning is a "high-frequency" childhood disease and that many children "are living in a sea of lead." The Massachusetts law's main problem, he says, is "opposition from landlords and other people who don't want to spend the money."

No one disagrees that some level of lead in the body is highly toxic, especially to children, whose developing brains are most vulnerable. But if lead causes the amount of brain damage posited by lead activists, skeptics ask, why haven't children's average IQs risen over the past 20 years as lead levels have plunged?

"That's a bad question," maintains Sue Binder, a leading CDC lead expert. Too many things affect IQ to "tease out" the positive effects of lower lead, she says. A 1991 blueprint for federal action of which Dr. Binder was co-author calls for a national abatement program that eventually would address "all housing with lead-based paint" – some 57 million U.S. housing units built before 1978.

Federal Legislation

The expense of such an effort deters lawmakers, despite the report's argument that benefits like lower costs of medical care and special education for lead-poisoned children would far outweigh its cost. Last year Congress passed a law requiring that purchasers and renters of pre-1978 housing be told of possible lead hazards, starting in 1995, and calling for gradual abatement of federally owned and assisted housing starting with older buildings.

Skeptics fret that, as with asbestos, litigation and the fear of litigation may soon become the main factor driving lead policy – prompting property owners to plunge into ill-advised abatements, often wasting money and potentially increasing the risk as lead dust is stirred up.

Massachusetts' experience illustrates the unintended effects strict abatement can cause. In Holyoke, Fitchburg, Lawrence and other towns, some multifamily housing with lead paint has been abandoned. With real-estate values already hurt by the economy, many landlords can't get home-equity loans to remove lead paint. Their properties then become unrentable, and they default on their mortgages.

But banks won't foreclose and seize the properties; doing so would expose them to possible lead-poisoning lawsuits. Thus, the buildings remain in limbo. Effectively ownerless, they often deteriorate beyond repair in a year or two.

"We've taken down 130 buildings here over the past year" that contained lead and were abandoned, says Veronica Collins, director of community development in Lawrence.

Family in a Bind

Richard Courchesne, who runs a nonprofit low-income-housing concern in Holyoke, says: "We can boast we're the leader in lead paint, but ultimately the families we're trying to take care of may freeze" because of housing abandonment. "Lead isn't the only reason, but it's usually the straw that breaks the camel's back."

Owners of single-family homes aren't exempt. Mary Hines, from Chicopee, says that soon after a preschool screening program showed "borderline" elevated lead in her daughter Danielle, state officials threatened to take Danielle away. The Hineses, strapped for cash after buying their first house, say they had ignored a state order to delead because their doctor said that Danielle's lead elevation was minor and that "there was no way" it resulted from exposure at the well-kept house they had just moved into.

They wound up abating with a loan that is now "a heavy financial burden," Ms. Hines says. "It was extremely traumatic. We felt our daughter was in no danger."

Massachusetts renters with children under six say they now have trouble finding places to live. Landlords, fearing lawsuits and unable to afford lead-paint abatement, often turn them away, even though that is illegal under a rarely enforced state law. Some even turn away young couples, fearing they will soon have children.

"The situation is creating strange bedfellows – I find myself siding with landlords" seeking to weaken the lead law, says Robert Lie, a Cambridge renter with two young sons who says he can't find a good apartment. "It's one of those laws that's so progressive, it's fascist."

The legislature is considering a proposal to ease the abatement mandate. It could be a "giant step backwards," says Stephanie Pollack, of a Boston environmental group called the Conservation Law Foundation. Ms. Pollack, who also serves on the national CDC lead committee, maintains the law has prevented many cases of lead poisoning in the state.

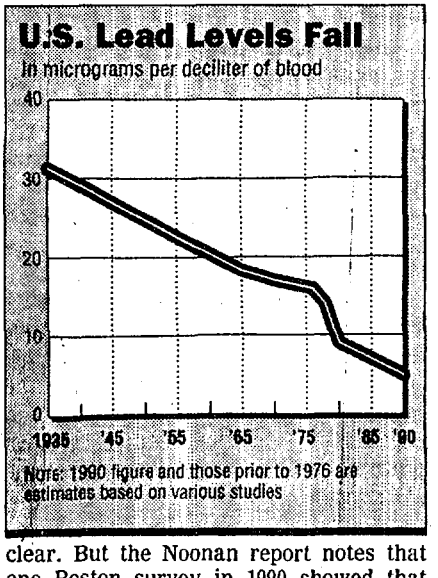
Side Effect of Abatement

But a little-publicized 1990 report by the Boston Office of Environmental Affairs suggests that deleading has often backfired. Called "the Noonan report," it examined a common removal method: scraping off lead paint. This can spread lead dust, so workers under study for the report sealed off work areas with plastic while running powerful air filters to suck up dust. Even this "enhanced" method and two cleanups left dangerous levels of lead dust in apartments, the study showed.

Similar studies in other places over the past decade show that scraping, torching or chemically stripping lead paint often causes children's blood-lead levels to rise. Such methods "are now at the bottom of the list" of preferred abatement techniques, says Jim Keck, a Baltimore abatement consultant who also sits on the CDC advisory committee.

Ms. Pollack questions the Noonan study's validity and says deleading methods have improved. But Massachusetts contractors say many customers still choose scraping because it is cheaper than the main alternative, which involves replacing doors and windows. Moreover, the state doesn't require testing for lead dust after deleading. Inspectors often just eyeball the premises.

What that means for children isn't clear. But the Noonan report notes that one Boston survey in 1990 showed that blood lead actually *rose* in nine of 22 children after their homes were deleaded. The report adds that the risk of childhood lead poisoning after deleading "has historically been 40%."



As with asbestos, the tendency is for abaters who do the most careful work to be consistently underbid by others who are willing to cut corners, or worse. Says one abatement consultant: "Even contractors I thought were trustworthy have had their moments trying to meet the bottom line. I wouldn't trust any of them to abate my house unless I was watching them every minute."

A Rise After Cleanup

Julie Norton agrees. A Newton, Mass., Episcopal minister and mother of two, she lives in a house owned by her church. After her small son and daughter were found in August 1992 to have moderately elevated lead levels, the church paid $17,000 to have the house abated. "But our attempt to make things better made things a whole lot worse," she says.

Soon after the abatement, her children's lead levels soared, requiring a long series of hospital visits, blood tests and injections of drugs to lower them. "You haven't truly suffered until you have to hold your kids down when they're hysterical and needles are being stuck in," she says. "My daughter Holly has picked up on my fear" about the lead poisoning and "wakes up screaming from nightmares about the injections."

Ms. Norton says she considered suing the abatement concern, but it has gone out of business.

Rising lead levels in children after deleading aren't necessarily due to dust released by the process. Problems can also come from old carpets, furniture, floor crevices and other places loaded with long-accumulated lead dust.

Studies indicate rigorous abatement can lower lead in children when their blood lead is highly elevated; in such cases, paint often is the culprit. But in the great majority of children whose blood contains lead, levels are only moderately elevated. In those cases, there generally is no identifiable main culprit.

In Dust and Soil

One reason is that traces of lead can be found in anything from public-water supplies to foods that have picked up dust containing lead. More important, numerous studies show that children ingest most of their lead by mouthing toys or other objects exposed to lead-laced dust.

"It's rare that a kid gets poisoned by eating lead-paint chips today," says Michael Weitzman, a University of Rochester lead researcher.

Studies also indicate that much of the lead dust comes from outdoors. Urban soil often is loaded with lead from decades of weathering exterior paint and leaded-gas emissions. Such soil gets tracked or blown into houses. Children also are exposed to it when playing outside.

In a 1983 study, researchers used a sophisticated "isotopic" fingerprinting method to identify sources of lead in the blood of 12 Oakland, Calif., children. It appeared to have come mainly from the soil around their homes.

Minnesota's Approach

The Oakland study and ones like it suggest that cutting children's exposure to lead-laced dust is generally more effective than paint abatement, says Patrick Reagan, a Hudson, Minn., consultant who helped shape his state's policy on lead. Minnesota's approach includes educating parents about the risks of high-lead dust, programs to limit dust in urban yards, and deploying "swab teams" to clean up dust in low-income housing. It also specifies that state agencies shouldn't disturb intact lead paint in low-income housing unless it clearly is poisoning children. "Rather than spend billions to remove a hazard that's not there, we wanted a low-cost, effective program," says Mr. Reagan.

Some activists decry the Minnesota approach as inadequate to address what they term a national "epidemic" of lead poisoning.

Lead levels are measured in micrograms per deciliter of blood. Public health agencies generally treat levels above 20 to 25 as serious enough to warrant intervention, such as checking children's homes.

Pittsburgh's Dr. Needleman says one sign of the lead epidemic's proportions is federal data showing that 1% to 2% of U.S. children have lead levels over 25 micrograms. But New York's Dr. Piomelli says that in recent tests at Columbia Presbyterian hospital, including many children from poor families, lead levels over 25 were found in only about one in 500 children, which would be 0.2%. Massachusetts data for the year ended June 30, 1992, show that one in 400 children tested over 25, or 0.25%.

Less in West

Moreover, doctors in Western states say they generally see much less elevated blood lead than in the East's "lead belt" of older houses. University of Utah pediatrician William Banner says that of 261 inner-city children recently screened in Salt Lake City, about 4% had levels over 10 micrograms but none had levels higher than 15. Doctors in Washington state report similar results. And a 1992 survey of 136 inner-city children under six in Oakland, Calif., showed that none had levels over 15, says Kaiser Permanente's Dr. Schoen.

Such scattered figures don't necessarily reflect overall rates. But they suggest that the lead-poisoning figures widely publicized over the past few years are far higher than current rates. Moreover, skeptics say, the purported poisoning epidemic seems less than overwhelming in light of data indicating that before 1960, the national average was over 20 micrograms per deciliter of blood, and before 1950 it was 25 or higher. Now it appears to be under five.

But J. Routt Reigart, a Charleston, S.C., pediatrician and chairman of the CDC advisory committee, contends that average rates are largely irrelevant. "We are constantly surprised by finding pockets of disease when we screen" children for elevated lead, he says.

That raises a critical issue: At what lead level are children actually poisoned?

Ambiguity in Studies

Scores of studies haven't settled it. In 1991, the CDC committee – which Dr. Piomelli, an anti-lead campaigner himself, contends is now dominated by "well-meaning fanatics" – concluded that "some adverse health effects have been documented at blood lead levels at least as low as 10." But few of the studies it cited lend clear support to that conclusion.

One reason is that research subjects in many studies have had average lead levels too high to shed much light on the low-level question. And a number of studies have been ambiguous, showing, at most, small adverse effects from low-level lead that researchers characterize with terms such as "borderline."

"There are a very large number of influences with impacts on childhood that are much larger than the proposed impact of lead" at low levels, says Marjorie Smith, a University of London researcher. That makes pinpointing low-lead effects something like trying to pick out the sound of the second violins in a symphony played on a radio with lots of static.

For instance, a study Dr. Smith led in the 1980s showed that children in larger families—those with three or more kids—had average IQs that were 3.77 points lower than those in smaller families. Similar-sized IQ reductions were associated with birth weights under six pounds and with coming from a low-income family.

Effects at Low Levels

By comparison, the data indicated a slight adverse effect from moderately elevated lead levels, perhaps less than one IQ point, but not enough to be statistically significant. The researchers concluded that "there was no overall evidence" that lead affected IQs in the children, once their parents' IQs and other factors were accounted for.

One study, however, did indicate a significant adverse effect at very low levels. It tracked 148 Boston children from birth to age 10 and found that at that age, their IQs were lower by 5.8 points for each 10 micrograms of lead per deciliter that had been in their blood at age two. Their lead levels at other ages, both before and after two, didn't seem to show statistically significant correlations with IQs.

Dr. Needleman, a co-author of that study, maintains that it meshes with other researchers' results in "an extraordinary convergence" of evidence that lead levels of 10 or below damage children. Other researchers agree there is substantial cause for concern at such levels but are more cautious. Says Gerhard Winneke, a prominent lead researcher at the University of Duesseldorf in Germany: The Boston study "is a single piece of evidence in a very complicated field. For me it's not enough" to establish that lead damages children at a level of 10 or below. "I'm not at all convinced that there is a consistency" among studies, he says.

Dr. Winneke notes that in some studies, lead appears to have a strong IQ effect at very low doses – while, in other studies, showing little or no effects at *higher* doses. Toxic substances are expected to show greater harm at greater doses.

The Role of Lawyers

Scientific uncertainty hasn't deterred lawyers, even when levels are low. In Massachusetts last year, the mother of a toddler with a lead level of *zero* won a $9,000 settlement in a suit against her landlord. Her attorney, Robert Rainer, says she deserved compensation for "emotional distress" about lead paint in her apartment.

Thousands of lead lawsuits now are pending nationwide, says John Hayes, editor of a newsletter on lead litigation put out by Mealey Publications in Philadelphia. The law firm generally takes a percentage of the damages won.

Some lead activists feel litigation is just what the doctor ordered. Property owners "would do nothing at all until children are poisoned if they didn't fear litigation," says Ms. Pollack of the Conservation Law Foundation, calling lawsuits a needed "stick."

The CDC advisory committee is well aware of this stick. In minutes of a 1991 meeting, one committee member is quoted saying that physicians "do not like to screen for lead poisoning" in children, but if "a couple of pediatricians get sued, it will change screening far more effectively than any public money that we can put into it." The minutes show there was even concern that setting lead limits too low might weaken the litigation stick, because it would be harder to prove that a particular building caused lead poisoning.

But there appears to be little danger of a slump in litigation. Mr. Rainer, the lawyer who won damages for a woman whose child's lead level was zero, says "the floodgates are open" for lead-poisoning lawsuits. He adds that his Boston law firm has filed hundreds of them over the past few years, and advertises on the radio about the potential for filing.

"As asbestos litigation dries up, law firms geared up for toxic tort litigation are turning to lead," Mr. Rainer says. "Once plaintiffs' attorneys find there are dollars to be made" in such cases, "they jump right on."

Top Lead Researcher Came in for Criticism In Probe of Methods

By David Stipp
Staff Reporter of The Wall Street Journal

A cloud over a pioneering lead scientist seemingly lifted a year ago. But a once-confidential report on a probe of his most influential study – obtained by The Wall Street Journal – could rekindle the controversy.

Concern about lead rose greatly after the 1979 study suggested that levels of it too low to cause overt poisoning could lower children's IQs. The finding helped establish its principal author, University of Pittsburgh researcher Herbert Needleman, as a top government adviser on lead.

But critics soon charged the study was based on dubious methods that could have exaggerated lead's harm. The doubts they raised, many of which were later echoed by investigating panels of scientists, cast a cloud on Dr. Needleman's credibility as a government adviser helping to shape lead policy.

Dr. Needleman hotly denies the charges and maintains that scientists who first raised them are tools of the lead industry. He argues that a number of other studies have supported his 1979 finding, published in the New England Journal of Medicine. He is widely praised in scientific circles for helping to focus attention on the lead problem.

But doubts lingered until last year, when an investigation of the landmark study seemed finally to remove the cloud. The inquiry was opened in 1991 by Dr. Needleman's university at the request of the National Institutes of Health. When it was completed, Dr. Needleman told reporters the University of Pittsburgh panel had cleared him of scientific misconduct. Afterward, he wrote an article in the journal Pediatrics that likened the inquiry to the Salem witch trials.

'Deliberately Misleading'

But the complete report is considerably more critical than he indicated. It says the investigating panel "is unanimous in believing that Dr. Needleman was deliberately misleading in the published account of the procedures used in the 1979 study."

In a three-page "history" of Dr. Needleman's statements on the study's methods, the panel detailed how he repeatedly changed his account of them. Moreover, said the panel, there was a "pattern of apparent reluctance of Dr. Needleman" to disclose certain details on how he classified children as being high or low in lead.

In the 1979 study, Dr. Needleman and colleagues collected fallen-out baby teeth from more than 2,000 children to check their cumulative lead exposures. Based on IQ tests given to 158 of the children, who were divided into high- and low-lead groups, they reported that elevated lead levels lowered IQ by about four points.

How Dr. Needleman selected the children that were ultimately tested was a critical part of the study, and his description of that selection is the focus of the Pitt panel's misrepresentation charge. Biased selection methods can skew a study's results.

The Pitt panel found no evidence Dr. Needleman manipulated selection methods to exaggerate the risk from lead. But his statements on the study's methods of classifying children "reveal a pattern of errors, omissions, contradictions and incomplete information from the original publication to the present," it concluded. There was a "preponderance of circumstantial evidence" suggesting deliberate misrepresentation, it said.

Suing for Retraction

Dr. Needleman counters that while he made a minor error in the 1979 paper in describing his methods, it was an "honest" one. He says that later he simply forgot some details of the procedures. He says the finding of deliberate misrepresentation "is totally wrong" and "approaches slander" because the panel "presumed to read my mind about what I deliberately intended." Dr. Needleman is seeking retraction of the charge in a suit against Pitt filed in federal district court for the Western District of Pennsylvania.

To be sure, the Pitt panel said, Dr. Needleman's original error was minor and didn't affect the study's results. But the panel also said that it is "difficult to imagine that Needleman forgot . . . that he apparently reset" the criteria for classifying children into lead-level groups "nearly every week during the initial phases of the procedure." The study's methods for classifying children "are essentially not reproducible by other investigators."

The panel stated that it "had great difficulty in deciding whether [Dr. Needleman's] conduct should be classified as scientific misconduct." It said disclosing the substandard methods before publication "would have risked rejection" of the paper by the New England Journal of Medicine (which declines to comment). Dr. Needleman may have misrepresented the methods, the Pitt panel suggested, so the study "would appear to be a more adequate basis for public policy regarding environmental controls for lead."

The panel concluded that had the paper contained "all the caveats it should have . . . it certainly should not have been a basis" for lead policy. It recommended that Dr. Needleman submit a correction to the New England Journal. He says he won't unless Pitt drops the misrepresentation charge. The Pitt report was referred last year to the National Institutes of Health for possible further action.

Jennifer Convertibles Expansion

PARAMUS, N.J. – **Jennifer Convertibles** Inc. said it opened seven licensed stores on the West Coast in the second half of August, and will open 14 more in the next 30 days.

The openings are part of an expansion program that calls for opening 50 to 60 licensed stores in the next 12 months.

Jennifer Convertibles, which currently operates 34 wholly owned stores and 88 licensed stores, reported total sales of $70.5 million for the 11 months ended in July, a 60% increase from sales of $44.1 million in the 1992 period.

SF 10/4/93

FROM	CONTROL NO.
Bob Duprey	8HWM-93-77
SUBJECT AND DATE Letter dated 9/28/93 from Dr. Frank E. Dotson, San Diego, CA re: Richardson Flat Tailings in Park City, UT request - response Clemmens	**DATE REC'D** 10/1/93 **DUE DATE** 10/29/93 ~~10/12/93~~

REFERRED (1)	(2)	(3)	(4)
8HWM-SR Shannon		McCarey 10/4/93	
DATE 10/4/93			

REPLY SENT TO	DATE RELEASED
	November 23, 1993
REMARKS	**ACKNOWLEDGED - DATE** ☐
	NO ANSWER NEEDED ☐ *(Explain in remarks)*

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